ALBENI FALLS BULL TROUT STUDIES PLAN

May 5, 2005

Proposed Action. The following discussion outlines a plan to develop and conduct bull trout studies at Albeni Falls Dam project that will provide the information necessary to support decision on whether and, if so, how to proceed with fish passage at the dam.

Continue monitoring of adult bull trout below Albeni Falls. Funding will be pursued to continue monitoring in 2007 through 2010. Monitoring will include attempts during the spring and summer in 2007 and 2008 to collect bull trout in the mainstem Pend Oreille River downstream of the dam and tag them with radioacoustic or other suitable transmitters.

Tagged adult fish collected below the dam will be released above the dam and tracked to determine movements. Using fixed acoustic receiver arrays and radiotelemetry equipment, fish movement will be monitored to determine if they remain above the dam, move into Lake Pend Oreille, and move into tributaries in apparent spawning migrations. Tracking efforts will be made for up to 12 months for each tagged fish, depending on transmitter life.

In addition to telemetry efforts, tissue samples of all captured bull trout will be taken for genetic analysis and comparison with the bull trout genetic inventory being compiled by the Kalispel Tribe, as well as by USFWS and Avista from bull trout captured in tributaries to the Clark Fork River above Lake Pend Oreille. The goal of the genetic comparison would be to determine genetic similarities of bull trout captured below the dam with stocks throughout the Pend Oreille Basin.

Develop and conduct a study of sub-adult bull trout. We will seek funding to develop and execute in 2007 and 2008, respectively, a study designed to clarify behavior of sub-adult bull trout in relation to Albeni Falls Dam operations. Currently, life history of sub-adult bull trout in the vicinity of Albeni Falls is largely unknown. Efforts in 2003 to monitor tagged fish from a Priest River tributary revealed that the tagged fish did not migrate to the mainstem Pend Oreille River during the spring. Key questions about the migration timing, size at migration, movements of sub-adult bull trout once in the Pend Oreille River are crucial to determining how sub-adult bull trout interact with Albeni Falls Dam. The objective of the proposed study will be to assess if downstream passage of sub-adult bull trout at Albeni Falls Dam is affecting bull trout conservation and recovery in the Pend Oreille basin.

Conduct water temperature study of Lake Pend Oreille and the Pend Oreille River system. From April to October 2005, the Corps will conduct a temperature study of Lake Pend Oreille and the Pend Oreille River system using automated temperature loggers to establish adequate baseline information for the Pend Oreille River and Lake Pend Oreille during the summer months. These data will allow the Seattle District to define the potential relationship between Albeni Falls Dam operations and the temperature in the Pend Oreille River system upstream and downstream of the dam. The study will include collection of temperature data in the dam forebay.

Conduct study of use of the log chute to provide attraction flows. Funding will be pursued for 2007 to conduct a study to evaluate the possibility of using the log chute to provide attraction water for bull trout. In conjunction with bull trout monitoring discussed above, this study would involve discharges via the log chute during the spring and summer together with fish sampling in the vicinity to determine if bull trout are attracted by the log chute flows. To evaluate attraction of bull trout under different flow and seasonal temperature regimes, the study would occur during the spring and early summer. In order to insure against failure to obtain data in the first year, the study would be repeated in a second year, if necessary.

Conduct a reconnaissance study on potential fish passage alternatives. We will seek funding for 2009 to prepare a reconnaissance-level study on options to provide upstream fish passage at Albeni Falls Dam. Potential options include, but are not limited to, trap-and-haul, a fishway, and a fish lock. Utilizing the findings of all previous studies and monitoring, the reconnaissance-level study will evaluate the various fish passage alternatives in terms of biological value and efficiency, authorized project purposes, technical viability, constructability, sustainability, and cost. The final reconnaissance study report would be completed by the end of calendar year 2009, at which time the Corps will meet with the Service to reach consensus on future fish passage requirements at the dam. At that time we would consider conducting a pilot study to address potential methods to provide passage for bull trout over or through Albeni Falls Dam.